THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 45

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte DANIEL R. POTTER

Appeal No. 96-1881
Application No. 08/095,476[1]

HEARD: December 9, 1997

Before STONER, Chief Administrative Patent Judge, and McQUADE and NASE, Administrative Patent Judges.

NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 37 through 40 and 45 through 54. Claims 55 through 61 have been allowed. Claims 1 through 36 and 41 through 44 have been canceled.[2]

[1] Application for patent filed July 23, 1993. According to the appellant, the application is a continuation of Application No. 07/786,704, filed November 1, 1991, now abandoned.

[2] Subsequent to the final rejection the examiner withdrew the 35 U.S.C. § 112, second paragraph, rejection of claims 45 through 47 (see Paper No. 28, mailed December 20, 1994) and the 35 U.S.C. § 103 rejections of claims 55 through 61 (see page 2 of the examiner's answer).

We AFFIRM.

BACKGROUND

The appellant's invention relates to a shoe sole. Claims 37 and 40 are representative of the subject matter on appeal and a copy of those claims, as they appear in the appendix to the appellant's brief, is attached to this decision.

The prior art references of record relied upon by the examiner as evidence of obviousness under 35 U.S.C. § 103 are:

Reed	2,677,906	May 11, 1954
Casey et al. (Casey)	4,049,854	Sep. 20, 1977
Rudy (Rudy '945)	4,219,945	Sep. 2, 1980
Rudy (Rudy '250)	4,287,250	Sep. 1, 1981
Vermeulen	4,999,931	Mar. 19, 1991
Bolla (United Kingdom)	2,050,145	Jan. 7, 1981

Claims 37 through 39, 45, 46 and 48 stand rejected under

35 U.S.C. § 103 as being unpatentable over Bolla in view of Reed and Rudy '250.

Claims 49 and 50 stand rejected under 35 U.S.C. § 103 as being unpatentable over the references as applied to claims 37 and 39 above, and further in view of Vermeulen.

Claims 40, 51, 53 and 54 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bolla in view of Casey and Rudy '250.

Claims 47 and 52 stand rejected under 35 U.S.C. § 103 as being unpatentable over the references as applied to claims 37, 40 and 45 above, and further in view of Rudy '945.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the § 103 rejections, we make reference to the examiner's answer (Paper No. 34, mailed August 8, 1995) for the examiner's complete reasoning in support of the rejections, and to the appellant's brief (Paper No. 33, filed May 8, 1995) and reply brief (Paper No. 35, filed October 20, 1995) for the appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. Upon evaluation of all the evidence before us, it is

our conclusion that the evidence adduced by the examiner is sufficient to establish the obviousness of the claimed subject matter. Accordingly, we will sustain the examiner's rejection of claims 37 through 40 and 45 through 54 under 35 U.S.C. § 103. Our reasoning for this determination follows.

We turn first to the examiner's rejection of independent claim 37 which was rejected under 35 U.S.C. § 103 as being unpatentable over Bolla in view of Reed and Rudy '250.

Bolla discloses a shoe sole including a bladder. The bladder is made of an upper and lower surfaces of elastomeric material (Bolla's pliable or flexible layers 1 and 2 of plastic sheet material). The upper and lower surfaces define three pressurized fluid-filled chambers (Bolla's air pockets 3, 4 and 5). As can be seen in Figures 1 and 2, each chamber has a different volume from the other chambers. The upper and lower surfaces are in contact at one location to define a blocking seal (Bolla's edge 12 along the lower right side of the sole as shown in Figure 1). Each of the three chambers have an end disposed adjacent that blocking seal so that the blocking seal precludes

fluid communication between any one of the three chambers and the remaining chambers through their ends.

The examiner determined on page 4 of the examiner's answer that

> [i]t would have been obvious in view of Reed and Rudy '250 to provide distinct and separate chambers being of either constant or varied pressure to the shoe of Bolla to further improve the shock absorbing abilities of the insole.

Implicit in this rejection is the examiner's view that the above noted modification of Bolla would result in an apparatus which corresponds to the apparatus recited in claim 37 in all respects.

We agree with the examiner that providing the same pressure in each of the three pockets 3, 4 and 5 of Bolla's shoe sole would have been obvious to one of ordinary skill in the art at the time of the appellant's invention in view of the teachings of Reed and Rudy '250. In fact, the appellant has not challenged this determination.

The arguments advanced by the appellant (brief, pp. 23-25) do not convince us of any error in the position of the examiner that claim 37 reads on the modified sole of Bolla. In that regard, contrary to the appellant's assertions, Bolla does

disclose three chambers (air pockets 3, 4 and 5) each having an end (as shown in Figure 1, each air pocket has an end adjacent to the rightmost edge 12) which is adjacent to a blocking seal (rightmost edge 12 along the area where the three pockets come together). Thus, Bolla does disclose a weld line (rightmost edge 12) that isolates three chambers from each other.

In light of the foregoing, we conclude that claim 37 is unpatentable under 35 U.S.C. § 103.

The appellant has grouped claims 37 through 39 and 45 through 50 as standing or falling together.[3] Accordingly, claims 38, 39 and 45 through 50 fall with claim 37. Thus, it follows that the examiner's rejection of claims 38, 39 and 45 through 50 under 35 U.S.C. § 103 is also sustained.

Next we turn to the examiner's rejection of independent claim 40 which was rejected under 35 U.S.C. § 103 as being unpatentable over Bolla in view of Casey and Rudy '250.

[3] See page 9 of the appellant's brief.

The examiner determined on page 5 of the examiner's answer that

> [i]t would have been obvious in view of Casey and Rudy '250 to make the bladder of Bolla by sealing the chambers after pressurization to a common pressure to further facilitate manufacturing and increase comfort.

Implicit in this rejection is the examiner's view that the above noted modification of Bolla would result in a method which corresponds to the method recited in claim 40 in all respects.

In applying the test for obviousness,[4] we reach the conclusion that the combined teachings of the applied prior art would have suggested the claimed method to one of ordinary skill in the art at the time of the appellant's invention. The arguments advanced by the appellant (brief, pp. 12-20) are unpersuasive for the following reasons.

Contrary to the appellant's argument (brief, pp. 15-18), we find that Casey is analogous art. The test for non-analogous art

[4] The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981).

is first whether the art is within the field of the inventor's endeavor and, if not, whether it is reasonably pertinent to the problem with which the inventor was involved. In re Wood, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979). A reference is reasonably pertinent if, even though it may be in a different field of endeavor, it logically would have commended itself to an inventor's attention in considering his problem because of the matter with which it deals. In re Clay, 966 F.2d 656, 659, 23 USPQ2d 1058, 1061 (Fed. Cir. 1992). In the present instance, we are informed by the appellant's originally filed specification (p. 3) that by practicing the method of the present invention, a bladder can be fabricated quickly, easily, and at low cost. The method that accomplishes those results is stated to involve selectively forming a number of chambers with an elastomeric material, such that each chamber is in fluid communication with the others. Thereafter, the interior is supplied with an amount of fluid, so that the chambers are all pressurized at the same desired level. The fluid communication is then sealed so that each of the chambers is separated from the other chambers. Casey teaches (1) that inflatable cushions can easily be prepared which have individual chambers in any of a large variety of desired

sizes and shapes, (2) that all of the chambers in the cushions can be simultaneously inflated through a single opening communicating with separate inlet passageways for the chambers, and (3) that this is done by a device which first directs air from a nozzle through the opening and into the chambers, and then seals the ends of the inlet passageways in a small area around the opening to provide an inflated and sealed air cushion.[5] Thus, Casey falls at least into the latter category of the Wood test, and logically would have commended itself to an artisan's attention in considering the appellant's problem. Thus, we conclude that Casey is analogous art.

Contrary to the appellant's argument (brief, pp. 13-15 and 18-19), we find that Casey does disclose isolated chambers and thus does provide the suggestion for modifying Bolla in the manner set forth by the examiner. Figures 7-9 of Casey show the sequence of inflating the chambers 26 and sealing the passageways 28. Specifically, Figure 7 is an enlarged fragmentary view, partially in section of an inflation station illustrating a cushion positioned about an inflating nozzle therein; Figure 8 is an enlarged fragmentary view, partially in section of the nozzle

[5] See column 1, lines 47-57, of Casey.

in Figure 7 during the inflation of a cushion; and Figure 9 is an enlarged fragmentary view, partially in section of the nozzle in Figures 7 and 8, but illustrated with a heated tube in position to seal an inflated cushion. Casey further discloses that (1) the cushions (14 in Figure 2 or 110 in Figure 10) have a plurality of inflatable chambers (26 in Figure 2 or 115 in Figure 10) between layers of polyolefin (18 and 20 in Figure 2 or 112 and 113 in Figure 10), (2) the one layer of the cushion has an opening (22 in Figure 2 or 116 in Figure 10), and (3) the chambers are disposed around the opening and each have a portion providing an inlet passageway (28 in Figure 2 or 117 in Figure 10) to the chamber from the opening. Additionally, Casey teaches at column 4, lines 4-9, that the means for sealing the inflated chambers in the cushion 14, includes the end of a heated, hollow, cylindrical tube 48 which is pressed toward the support surface 46 around the nozzle 44 to seal shut the inlet passageways 28 around the opening 22 (see Figure 9). Further, Casey discloses at column 6, lines 40-61, that the means for sealing the inlet passageways 28 to the chambers 26 after the cushion 14 is inflated (i.e., the hollow cylindrical heated tube 48) includes an annular end sealing surface 97 which is movable by cylinder 102 between a waiting position spaced from an inflatable cushion

14 and a sealing position at which the sealing end surface 97 of the heated tube 48 will be pressed against such a cushion 14 on the support surface 46 to seal shut the inlet passageways 28 of the cushion 14 in a narrow band around its central opening 22 (see Figure 9). In view of these teachings of Casey that the inlet passageways are sealed shut, we find that Casey would have taught one skilled in the art that after the inlet passageways are sealed shut, the chambers (26 in Figure 2 or 115 in Figure 10) are isolated from each other (i.e., the chambers are out of fluid communication from each other). Thus, Casey teaches the following steps (1) forming a bladder having opposing surfaces from elastomeric material, the bladder formed to include two chambers opened at one end to a common area, the chambers isolated from each other except at said common area;
(2) supplying fluid into the bladder, the fluid flowing through the common area so that each chamber is pressurized; and
(3) joining the surfaces to each other at the common area after the chambers are pressurized and thereby isolating the chambers out of fluid communication from each other. In view of the above-noted teachings of Casey, we believe there is ample motivation for one skilled in the art to have inflated Bolla's air pockets 3 and 4, for example, simultaneously through a single

opening communicating with separate inlet passageways for each air pocket and to have then sealed the ends of the inlet passageways in a small area around the opening.

Lastly, the appellant's argument (brief, pp. 19-20) that Bolla teaches away from the asserted combination is unpersuasive for the following reason. First, the examiner's rejection is not based upon sealing interuptions 50 of Bolla but upon Bolla's sealed air pockets 3, 4 and 5. Second, while Bolla does specifically disclose that the air pockets 3, 4 and 5 can be inflated by means of a syringe or appropriate valve, Bolla also states the air pockets 3, 4 and 5 can be inflated by a known method.[6] Thus, we agree with the examiner (answer, p. 9) that Bolla would have suggested to one skilled in the art to inflate his air pockets 3, 4 and 5 by any known method.

In light of the foregoing, we conclude that claim 40 is unpatentable under 35 U.S.C. § 103.

[6] See page 1, lines 97-100, of Bolla.

The appellant has grouped claims 40 and 51 through 54 as standing or falling together.[7] Accordingly, claims 51 through 54 fall with claim 40. Thus, it follows that the examiner's rejection of claims 51 through 54 under 35 U.S.C. § 103 is also sustained.

CONCLUSION

To summarize, the decision of the examiner to reject claims 37 through 40 and 45 through 54 under 35 U.S.C. § 103 is affirmed.

[7] See page 9 of the appellant's brief.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED

BRUCE H. STONER, JR. Chief, Administrative Patent Judge	)
JOHN P. McQUADE Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)

Appeal No. 96-1881
Application No. 08/095,476

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APPENDIX

37. A shoe sole including a bladder, said bladder made of an elastomeric material and comprising upper and lower surfaces defining at least three pressurized fluid-filled chambers, each chamber having a different volume from the other said chambers, said upper and lower surfaces in contact at one location to define a blocking seal, each said chamber having an end, each said end disposed adjacent said blocking seal, said blocking seal precluding fluid communication between any one said chamber and another said chamber through said ends, wherein said at least three chambers are pressurized to the same pressure and thereby have a different resistance to compression.

40. A method of making a shoe sole comprising the steps of:

forming a bladder having opposing surfaces from elastomeric material, said bladder formed to include two chambers opened at one end to a common area, said chambers isolated from each other except at said common area;

supplying fluid into said bladder, said fluid flowing through said common area so that each chamber is pressurized; and

joining said surfaces to each other at the common area after the chambers are pressurized and thereby isolating said chambers out of fluid communication from each other.

APPEAL NO. 96-1881 - JUDGE NASE
APPLICATION NO. 08/095,476

APJ NASE

APJ McQUADE

CAPJ STONER

DECISION: **AFFIRMED**

Prepared By: Delores A. Lowe

DRAFT TYPED: 21 Dec 98

FINAL TYPED:

HEARD: 9 Dec 97